

EXPLANATION OF THE PLATES.

PLATE XXXVI.

Fig. 1. *Sarpedon robustum* ♀, p. 354.

a, Spider, magnified; *b*, ditto, in profile; *c*, eyes, from above and behind; *d*, underside of cephalothorax, showing maxillæ, sternum, and labium; *e*, spinners, from underneath; *f*, natural length of Spider.

2. *Atypoides riversii* ♂ & ♀, p. 355.

a, Spider, natural size; *b*, profile of ♂; *c*, profile of ♀; *d*, eyes, from above and behind; *e*, underside of cephalothorax, showing maxillæ, labium, sternum, and falces of ♂; *f*, left palpus of ♂, from, outer side.

3. *Amaurobioides maritima* ♀, p. 356.

a, Spider, magnified; *b*, ditto, in profile; *c*, eyes, from in front; *d*, eyes, from above and behind; *e*, underside of cephalothorax, showing maxillæ, labium, and sternum; *f*, natural length of Spider.

4. *Cyrsillus drassiformis* ♂, p. 358.

a, Spider, magnified; *b*, ditto, in profile; *c*, eyes, from in front; *d*, underside of cephalothorax, showing maxillæ, labium, and sternum; *e*, leg of first pair; *f*, *g*, left palpus in two positions; *h*, natural length of Spider.

PLATE XXXVII.

5. *Casturopoda sigillata* ♀, p. 360.

a, Spider, magnified; *b*, ditto, in profile; *c*, eyes, from above and behind; *d*, underside of cephalothorax, showing maxillæ, labium, and sternum; *e*, genital aperture; *f*, natural length of Spider.

6. *Nesis nigropunctatus* ♂, p. 361.

a, Spider, magnified; *b*, ditto, in profile; *c*, eyes and falces, from in front; *d*, underside of cephalothorax; *e*, left palpus, from in front; *f*, natural length of Spider.

7. *Palæphatus salticiformis* ♀, p. 362.

a, Spider, magnified; *b*, ditto, in profile; *c*, eyes, from in front; *d*, eyes, from above and behind; *e*, underside of cephalothorax, showing maxillæ, labium, and sternum; *f*, natural length of Spider.

8. *Pherecydes tuberculatus* ♀, p. 363.

a, Spider, magnified (legs of second pair wanting); *b*, Spider in profile; *c*, caput, in front and a little raised on one side; *d*, eyes and falces, from in front; *e*, underside of cephalothorax, showing maxillæ, labium, and sternum; *f*, genital aperture; *g*, natural length of Spider.

3. List of Lepidoptera collected by Mr. H. O. Forbes in the Islands of Timor Laut. By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

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(Plate XXXVIII.)

Twenty-three species of Lepidoptera were obtained by Mr. Forbes in his recent expedition to Timor Laut; one of these, however, is apparently a Micro-Lepidopteron, so much rubbed and broken as to be unrecognizable; all the Moths, in fact, are in very poor condition, forming a marked contrast in this respect to the Butterflies, which are well preserved.

The following Table will give an idea of the geographical relations of the named species in this collection :—

Species of Timor Laut.	Nearest allied species.	Typical locality of the latter.
<i>Chanapa sacerdos</i> .	<i>Chanapa lewini</i> .	North Australia.
<i>Calliphea visenda</i> .	<i>Calliphea hyems</i> .	Timor.
<i>Salatura laratensis</i> .	<i>Salatura artenice</i> .	Java.
<i>Hypolimnas forbesii</i> .	<i>Hypolimnas polymena</i> .	Aru.
<i>Precis expansa</i> .	<i>Precis timorensis</i> .	Timor.
<i>Catochrysops patala</i> .	<i>Catochrysops patala</i> .	Massuri.
<i>Lampides ælianus</i> .	<i>Lampides ælianus</i> .	East India
<i>Delias timorensis</i> .	<i>Delias timorensis</i> .	Timor.
<i>Terias maroensis</i> .	<i>Terias excavata</i> .	Kangra.
<i>Terias laratensis</i> .	<i>Terias lifuana</i> .	Lifu.
<i>Appias albina</i> .	<i>Appias albina</i> .	Amboina.
<i>Appias clementina</i> .	<i>Appias clementina</i> .	Amboina.
<i>Belenois consanguis</i> .	<i>Belenois pitys</i> .	Timor.
<i>Papilio aberrans</i> .	<i>Papilio liris</i> .	Timor.
<i>Papilio inopinatus</i> .	<i>Papilio adrastus</i> .	Banda, New Guinea.
<i>Diludia casuarinæ</i> ?	<i>Diludia casuarinæ</i> .	Sydney.
<i>Ercheia dubia</i> .	<i>Ercheia dubia</i> .	Rockhampton.
<i>Lagoptera honesta</i> .	<i>Lagoptera honesta</i> .	East Indies.
<i>Lyssidia goldiei</i> .	<i>Lyssidia goldiei</i> .	New Guinea.
<i>Pinacia molybdænalis</i> .	<i>Pinacia molybdænalis</i> .	Batavia.
<i>Hymenia fascialis</i> .	<i>Hymenia fascialis</i> .	Japan.

From the above, however, we may deduct the wide-ranging species *Catochrysops patala*, *Lampides ælianus*, *Lagoptera honesta*, and *Hymenia fascialis*, which leaves us 5 Timor types, 3 Australian, 2 Amboina, 2 New Guinea, 1 Aru, 1 Lifu, 2 Javan, 1 Indian. The last of these, however, is equally characteristic of the Malayan fauna, as also is that from Polynesia; these two forms therefore may be regarded as doubtful, which will leave the relative proportions of the species as follows:—Indo-Malayan 2, Austro-Malayan 10, Australian 3. The only surprising thing in this distribution is the preponderance of Timor over Aru or New-Guinea forms, the species characteristic of that island being only equalled by those from Aru, New Guinea, and Amboina combined.

RHOPALOCERA.

NYMPHALIDÆ.

EUPLŒINÆ.

1. CHANAPA SACERDOS, sp. n. (Plate XXXVIII. fig. 7.)

Nearly allied to *C. lewini* of Australia; the wings much blacker, the primaries of the male velvet-black, the white spots on the primaries decidedly larger, the sericeous band on the male of twice the length: secondaries with the discal series of white spots more regular, nearer to outer margin, and not notched as in *C. lewini*; the submarginal spots clearer and arranged more regularly. Expanse of wings, ♂ 78 mm., ♀ 71 mm.

Larat.

2. *CALLIPLŒA VISENDA*, sp. n. (Plate XXXVIII. fig. 1.)

Allied to *C. hyems* (*arisbe*, Fld.) from Timor, but much darker; the primaries of the male velvet-black, the white spots on the primaries larger, especially the two last in the series, the last of all being the largest spot in the series; submarginal dots wanting on the upper surface of primaries, but present on the secondaries, which are not bordered with pearl-white but with greyish brown; the discal spots forming a sinuous white band well separated from the margin, somewhat as in the preceding species; the usual whitish costa and cream-coloured sexual patch. Expanse of wings 64 mm.

Maroe Island.

This is one of the prettiest species in the genus, and is doubtless a copy of the preceding species.

3. *SALATURA LARATENSIS*, sp. n. (Plate XXXVIII. fig. 5.)

Allied to *S. artemice*, Cramer, of Java; but the subapical white fascia decidedly broader; no central white markings on the secondaries; the veins on the under surface of these wings less distinctly bordered with white. Expanse of wings 70-74 mm.

Larat.

NYMPHALINÆ.

4. *HYPOLIMNAS FORBESII*, sp. n. (Plate XXXVIII. fig. 4.)

♀. Allied to *H. polymena* from Aru: velvet-black shot with purple; primaries with the pattern of *H. velleda* ♀, but darker, and with all the white spots of double the size; the secondaries differ from *H. polymena* in having a series of hastate brown dashes along the internervular folds from just beyond the middle of the broad cream-coloured external area, through the centre of which a series of white spots can be dimly seen. Expanse of wings 80 mm.

Larat.

This is one of the most beautiful species in the genus; it bears a vague resemblance to *H. albula* of Timor, which, however, belongs to the *H. anomala* group.

5. *PRECIS EXPANSA*, sp. n.

♀. Allied to *P. timorensis* of Wallace, from which, however, it differs in its clearer fulvous colouring above, the blackish colouring of the external area being confined to the apex, the paler coloration of the under surface, its broader and less produced primaries, and the less pronounced caudal angle to the secondaries. Wings above tawny, with black markings and bluish-centred ocelli, as in *P. erigone* of Java (Cramer, Pap. Exot. i. pl. 62. E, F), but the white markings of that species replaced by a slightly paler tint of tawny than the ground-colour; under surface as in *P. erigone*. Expanse of wings 52-54 mm.

Larat.

Why the *P.-erigone* group has been referred to *Junonia* and the scarcely differing *P. natalica* to *Precis* it would, I think, be hard to explain. *P. antigone* and *P. natalica* seem very closely allied species.

LYCÆNIDÆ.

6. CATOCHRYSOPS PATALA.

Lycæna patala, Kollar, Hûgel's Kaschmir, iv. 2, p. 419 (1848).

♂. Maroe Island.

Does not differ from Indian specimens excepting in the slightly whiter tint of the under surface.

7. LAMPIDES ÆLIANUS.

Hesperia ælianus, Fabricius, Ent. Syst. iii. 1, p. 280. n. 79 (1793).

Larat.

Does not differ from Indian specimens excepting in its slightly inferior expanse of wing; in colouring and pattern it perfectly agrees.

PAPILIONIDÆ.

PIERINÆ.

8. DELIAS TIMORENSIS. (Plate XXXVIII. fig. 6.)

Pieris timorensis, Boisduval, Sp. Gén. Lép. i. p. 459. n. 30 (1836).

Larat.

Most nearly allied to *D. vishnu* of Moore from Java (with which species it was associated by Wallace). It differs in its superior size, the narrower black area of the upper surface, the deeply sinuated inner edge of the black area on the primaries, the apical series of spots much smaller, the fifth, as Boisduval says, "très petite et ponctiforme," whereas in *D. vishnu* this is the case with a sixth spot not present in *D. timorensis*: primaries below with the basal pale area cuneiform (not angular), pure lemon-yellow within and just below the cell, otherwise pearl-white ("la base gris-blanchâtre saupoudrée de jaune pur," *Boisd.*): secondaries with only the basi-abdominal third¹ brilliant golden yellow, suffused at its inferior extremity with bright orange; the inner edge of this area straight, not angulated as in *D. vishnu*; the submarginal red lunules narrower, of a more carmine tint, the terminal one not expanded, further from the outer margin, yet not touching the yellow area; there are in fact, as Boisduval says, "sept lunules," and not six lunules and two spots as in *D. vishnu*.

9. TERIAS MAROENSIS, sp. n. (Plate XXXVIII. fig. 2.)

♀. Nearly allied to *T. excavata* of Moore, from India, but of a decidedly deeper yellow (bright sulphur) than the female of that species; the inner edge of the external border decidedly arched, convex, not concave, towards the costa, the sinuation upon the median interspaces not so deep and more oblique (as in *T. sari*); the discal

¹ The carelessness of Boisduval's description at this point probably misled Wallace; he says:—"La moitié antérieure d'un beau jaune de chrome." On the other hand, the yellow of *D. vishnu* has a decidedly dull creamy appearance.

markings on the under surface of secondaries less defined and arranged in a much less irregular series. Expanse of wings 42 mm.

Maroe Island.

10. *TERIAS LARATENSIS*, sp. n. (Plate XXXVIII. fig. 3.)

♂. Nearly allied to *T. lifuana*; above most like my "Japanese *Terias*," fig. 10 (Trans. Ent. Soc. 1880, pl. vi.), but with less-pointed primaries and narrower apical border; it, however, belongs to the *T.-æsiöpe* group, the primaries below being marked with a curved series of three subapical red-brown spots; other markings much as usual, all well defined; the discal series of secondaries forming a nearly straight line between the first subcostal and second median branches. Expanse of wings 39 mm.

Larat.

11. *APPIAS ALBINA*.

Pieris albina, Boisduval, Sp. Gén. Léop. i. p. 480. n. 62 (1836).

♂. Maroe Island.

A small example; the species was originally described as from Amboina.

12. *APPIAS CLEMENTINA*.

Pieris clementina, Felder, Sitzungsab. Ak. Wiss. Wien, math.-nat. Cl. xl. p. 448 (1860); Reise der Nov., Lep. ii. p. 162. n. 133, pl. 25. fig. 6 (1867).

♂. Maroe Island.

Originally described as from Amboina.

13. *BELENOIS CONSANGUIS*, sp. n.

Nearly allied to *B. pitys* from Timor, but a little smaller; the external border of primaries with more oblique inner edge, much broader towards the costa and without any trace of a subapical white spot: primaries below white, suffused with sulphur-yellow at the base only; external area black internally, but of a reddish clay-colour towards apex; its inner edge much less irregular than in *B. pitys*, being sinuated only on the lower radial and lower (or first) median interspaces: secondaries saffron-yellow, the external border with purplish-black internal, and reddish clay-coloured external half. Expanse of wings 48 mm.

Larat.

PAPILIONINÆ.

14. *PAPILIO ABERRANS*, sp. n.

Pattern and form of *Papilio iris* of Timor, which it greatly resembles on the upper surface, but the pale area on the primaries is whiter, and the submarginal spots on the secondaries sandy brown, instead of dull red; the sides of the abdomen, front of head, ant. s. and lateral pectoral stripe are ochreous instead of deep rose-red, and the submarginal spots on the under surface of the secondaries are ochreous buff instead of rose-red. Expanse of wings 108 mm.

♂ ♀. Larat.

There were several examples of this species in Mr. Forbes's collection, clearly showing that the differences of coloration are constant.

15. *PAPILIO INOPINATUS*, sp. n.

Allied to *P. adrastus* of Felder, from Ceram and N. Guinea; but the male with a broad oblique subapical white belt, which does not quite reach the outer margin and is cut by the black nervures; the fascia on the secondaries narrower, formed more nearly as in the Australian *P. ægeus*, with zigzag outer edge, but of more uniform width throughout than in that species, and of a sordid cream-colour; a scarlet spot near the anal angle, well separated from the central fascia. The female differs in the whiter and oblique belt across the primaries, the inner edge of which is not so deeply zigzag, and therefore is not angulated as in the allied species, and the outer half toward apex suffused with grey so as greatly to reduce its width; secondaries with no trace of the central white patch, the submarginal scarlet spot large, oblong, and notched in front. Expanse of wings, ♂ 144 mm., ♀ 153 mm.

♂ var. Wings shorter; the inner edge of the white band of primaries impinged upon by the discoidal cell, which also encloses a spot of the same colour as the band; the band of the secondaries broader, cutting across the end of the cell. Expanse of wings 132 mm.

Maroe Island.

HETEROCERA.

SPHINGIDÆ.

16. *DILUDIA CASUARINÆ*?

Macrosila casuarinæ, Walker, Lep. Het. viii. p. 210. n. 19 (1856).

"M. Saqueir," Larat.

The specimen is so much rubbed that it is impossible to be sure that it is the same as the Australian species.

CATEPHIIDÆ.

17. *ERCHEIA DUBIA*.

Catephia dubia, Butler, Cist. Ent. i. p. 292 (1874).

Larat.

One worn example of this Australian species was obtained.

OPHIUSIDÆ.

18. *LAGOPTERA HONESTA*.

Thyas honesta, Hübner, Samml. exot. Schmett. ii. Lep. iv., Noct. iii., Semigeometræ v., Meropides A, Festivæ 1, figs. 1, 2 (1805).

♀. Larat.

